

POINT IG RECORD

DATE	FROM	TO	ACTION
10/26/07	A	J	Transfer
10/30/07	ADDL	GR01	Prescreen <i>JA</i>
10/31/07	GR01		I C/C accept
11/2/07	GR01	ADDL	PO Recon
2-28-08	ADDL	CTD/p	PO Approved <i>JA</i>

REFERENCE TO OTHER ADO PROCEEDS INCLUDING VARIANCES

F95587

LEE

APPL # 474768
I. D. # 29110

ORANGE COUNTY SANITATION DISTRICT
22212 BROOKHURST ST
HUNTINGTON BEACH
ICE

Date: 10/19/07

2935 BNP ①



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

Page 1
Permit No.
F95587
A/N 474769

PERMIT TO OPERATE

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner
or Operator:

ID 29110

ORANGE COUNTY SANITATION DISTRICT
P O BOX 8127
FOUNTAIN VALLEY, CA 92728-8127

Equipment Location: 22212 BROOKHURST ST, HUNTINGTON BEACH, CA 92646-8457

Equipment Description :

INTERNAL COMBUSTION ENGINE, NO. 2 AT PB-B, DETROIT DIESEL, 16 CYLINER,
TURBOCHARGED, AFTERCOOLED, MODEL T163-7K16, 2935 BHP, SERIAL NUMBER DD5272000531,
DIESEL -FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
4. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
5. THE OPERATION OF THE ENGINE BEYOND 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
6. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS

FILE COPY



PERMIT TO OPERATE

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

7. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

By Dorris M. Bailey/GR01

2/27/2008

FILE COPY



South Coast Air Quality Management District

Form 400-A**Application For Permit To Construct and Permit To Operate**Mail Application To:
P.O. Box 4944
Diamond Bar, CA 91765Tel: (909) 396-3385
www.aqmd.gov**Section A: Operator Information**

1. Business Name of Operator To Appear On The Permit:

Orange County Sanitation District

2. Valid AQMD Facility ID (Available on Permit or Invoice issued by AQMD):

029110

3. Owner's Business Name (only if different from Business Name of Operator):

Section B: Equipment Location

4. Equipment Location Address:

For equipment operated at various locations in AQMD's jurisdiction, provide address of initial site

22212 Brookhurst Street

Street Address

Huntington Beach

CA, 92646

City

State Zip Code

County: ☐ Los Angeles ☒ Orange ☐ San Bernardino ☐ Riverside

Contact Name: Vladimir Kogan

Contact Title: Senior Scientist Phone: (714) 593-7085

Fax: (714) 962-8379

E-Mail: vkogan@ocsd.com

Section C: Permit Mailing Address

5. Permit and Correspondence Information:

☐ Check here if same as equipment location address

10844 Ellis Avenue

Street Address

Fountain Valley

CA

92708

State Zip Code

7018

County: ☐ Los Angeles ☒ Orange ☐ San Bernardino ☐ Riverside

Contact Name: Vladimir Kogan

Contact Title: Senior Scientist Phone: (714) 593-7085

Fax: (714) 962-8379

E-Mail: vkogan@ocsd.com

Section D: Application TypeThe facility is in ☐ RECLAIM ☐ Title V ☐ RECLAIM & Title V Program (please check if applicable)

6. Reason for Submitting Application (Select only ONE):

☐ New Construction (Permit to Construct)☐ Equipment Operating Without A Permit or Expired Permit*☐ Administrative Change☒ Equipment On-Site But Not Constructed or Operational☐ Title V Application (Initial, Revisions, etc.) (Also complete Form 500-TV)☐ Compliance Plan☐ Facility Permit Amendment☐ Registration/Certification☐ Streamlined Standard Permit☐ Permitted Equipment Altered/ Modified Without Permit Approval*☐ Proposed Alteration/Modification to Permitted Equipment☒ Change of Condition For Permit To Operate☐ Change of Condition For Permit To Construct☐ Change of Location—Moving to New SiteExisting Or Previous Permit/Application Number:
(If you checked any of the items in this column, you MUST provide a existing Permit/ Application Number)

F21753

357971

7. Estimated Start Date of Operation/Construction (MM/DD/YYYY):

8. Description of Equipment:

Internal Combustion Engine, Detroit Diesel, 16 cylinder, turbocharged, aftercooled, Model TI63-7K16, 2935 BHP, Diesel fueled, driving an emergency electrical generator

9. Is this equipment portable AND will it be operated at different locations within AQMD's jurisdiction? ☒ No ☐ Yes

10. For identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each) 2

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are \$500,000 or less, or a not-for-profit training center?) ☒ No ☐ Yes

12. Has a Notice of Violation (NOV) or a Notice To Comply (NC) been issued for this equipment?

☒ No ☐ Yes If yes, provide NOV/NC #:

* A Higher Permit Processing Fee applies to those items with an asterisk (Rule 301 (c) (1) (D))

Section E: Facility Business Information

13. What type of business is being conducted at this equipment location?

Sewage Treatment

14. What is your businesses primary NAICS Code (North American Industrial Classification System)?

221320

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? ☐ No ☒ Yes16. Are there any schools (K-12) within a 1000-ft. radius of the equipment physical location? ☒ No ☐ Yes**Section F: Authorization/Signature** I hereby certify that all information contained herein and information submitted with this application is true and correct.

17. Signature of Responsible Official:

18. Title:

Manager, ECRA

19. Print Name:

Michael D. Moore

20. Date:

10/18/07

Check List

- ☒
- Form(s) signed and dated by authorized official
-
- ☒
- Supplemental Equipment Form (400-E-XX or 400-E-GEN)
-
- ☒
- CEQA Form (400-CEQA) attached
-
- ☒
- Payment for permit processing fee attached

Your application will be rejected if any of the above items are missing.

AQMD USE ONLY	APPLICATION/TRACKING #	TYPE	EQUIPMENT CATEGORY CODE:	FEE SCHEDULE:	VALIDATION
	474769	B C D	043902	923.92 B	10-19-07/18
ENG. (A) R GCR	ENG. A R	CLASS III IV	ASSIGNMENT Unit A Engineer	CHECK/MONEY ORDER AMOUNT	Tracking #
DATE 10/31/07	DATE			1000095038 923.92	

(65071)

ENGINEERING

'07 OCT 19 P1:16



South Coast Air Quality Management District

Form 400-CEQA

California Environmental Quality Act (CEQA) Applicability

Mail Application To:
P.O. Box 4944
Diamond Bar, CA 91765

Tel: (909) 396-3385

www.sqmd.gov

The SCAQMD is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the SCAQMD in clarifying whether or not the project¹ has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document [CEQA Guidelines §15060(a)].² Refer to the attached instructions for guidance in completing this form.³ For each Form 400-A application, also complete and submit one Form 400-CEQA. If submitting multiple Form 400-A applications for the same project at the same time, only one 400-CEQA form is necessary for the entire project. If you need assistance completing this form, contact Lori Inga at (909) 396-3109.

FACILITY INFORMATION

Business Name of Operator to Appear on the Permit:

Orange County Sanitation District

Facility ID (6-Digit):

029110

Project Description:

Change of condition to an existing stationary emergency diesel engine permit. The permitted allowance for maintenance and testing purposes should be revised from 20 to 50 hours per year based on attached source-testing results (Rule 1470)

REVIEW FOR EXEMPTION FROM FURTHER CEQA ACTION

Check "Yes" or "No" as applicable

	Yes	No	Is this application for:
A.	<input type="radio"/>	<input checked="" type="radio"/>	A CEQA and/or NEPA document previously or currently prepared that specifically evaluates this project? If yes, a permit cannot be issued until a Final CEQA document and Notice of Determination is submitted.
B.	<input type="radio"/>	<input checked="" type="radio"/>	A request for a change of permittee only (without equipment modifications)?
C.	<input type="radio"/>	<input checked="" type="radio"/>	Equipment certification or equipment registration (qualifies for Rule 222)?
D.	<input type="radio"/>	<input checked="" type="radio"/>	A functionally identical permit unit replacement with no increase in rating or emissions?
E.	<input type="radio"/>	<input checked="" type="radio"/>	A change of daily VOC permit limit to a monthly VOC permit limit?
F.	<input type="radio"/>	<input checked="" type="radio"/>	Equipment damaged as a result of a disaster during state of emergency?
G.	<input type="radio"/>	<input checked="" type="radio"/>	A Title V (i.e., Regulation XXX) permit renewal (without equipment modifications)?
H.	<input type="radio"/>	<input checked="" type="radio"/>	A Title V administrative permit revision?
I.	<input type="radio"/>	<input checked="" type="radio"/>	The conversion of an existing permit into an initial Title V permit?

If "Yes" is checked for any question above, your application does not require additional evaluation for CEQA applicability. Skip to page 2, "SIGNATURES" and sign and date this form.

REVIEW OF IMPACTS WHICH MAY TRIGGER CEQA

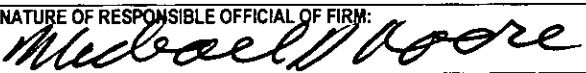

Complete Sections I-VI by checking "Yes" or "No" as applicable. To avoid delays in processing your application(s), explain all "Yes" responses on a separate sheet and attach it to this form.

	Yes	No	Section I - General
1.	<input type="radio"/>	<input checked="" type="radio"/>	Has this project generated any known public controversy regarding potential adverse impacts that may be generated by the project? Controversy may be construed as concerns raised by local groups at public meetings; adverse media attention such as negative articles in newspapers or other periodical publications, local news programs, environmental justice issues, etc.
2.	<input type="radio"/>	<input checked="" type="radio"/>	Is this project part of a larger project?
Section II - Air Quality			
3.	<input type="radio"/>	<input checked="" type="radio"/>	Will there be any demolition, excavating, and/or grading construction activities that encompass an area exceeding 20,000 square feet?
4.	<input type="radio"/>	<input checked="" type="radio"/>	Does this project include the open outdoor storage of dry bulk solid materials that could generate dust? If Yes, include a plot plan with the application package.

¹ A "project" means the whole of an action which has a potential for resulting in physical change to the environment, including construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit. For example, a project might include installation of a new, or modification of an existing internal combustion engine, dry-cleaning facility, boiler, gas turbine, spray coating booth, solvent cleaning tank, etc.

² To download the CEQA guidelines, visit http://ceres.ca.gov/env_law/state.html.

³ To download this form and the instructions, visit <http://www.sqmd.gov/ceqa> or <http://www.sqmd.gov/permit>

	Yes	No	
5.	<input type="radio"/>	<input checked="" type="radio"/>	Would this project result in noticeable off-site odors from activities that may not be subject to SCAQMD permit requirements? For example, compost materials or other types of greenwaste (i.e., lawn clippings, tree trimmings, etc.) have the potential to generate odor complaints subject to Rule 402 – Nuisance.
6.	<input type="radio"/>	<input checked="" type="radio"/>	Does this project cause an increase of emissions from marine vessels, trains and/or airplanes?
7.	<input type="radio"/>	<input checked="" type="radio"/>	Will the proposed project increase the QUANTITY of hazardous materials stored aboveground onsite or transported by mobile vehicle to or from the site by greater than or equal to the amounts associated with each compound on the attached Table 17⁴
Section III – Water Resources			
8.	<input type="radio"/>	<input checked="" type="radio"/>	Will the project increase demand for water at the facility by more than 5,000,000 gallons per day? The following examples identify some, but not all, types of projects that may result in a "yes" answer to this question: 1) projects that generate steam; 2) projects that use water as part of the air pollution control equipment; 3) projects that require water as part of the production process; 4) projects that require new or expansion of existing sewage treatment facilities; 5) projects where water demand exceeds the capacity of the local water purveyor to supply sufficient water for the project; and 6) projects that require new or expansion of existing water supply facilities.
9.	<input type="radio"/>	<input checked="" type="radio"/>	Will the project require construction of new water conveyance infrastructure? Examples of such projects are when water demands exceed the capacity of the local water purveyor to supply sufficient water for the project, or require new or modified sewage treatment facilities such that the project requires new water lines, sewage lines, sewage hook-ups, etc.
Section IV – Transportation/Circulation			
10.			Will the project result in (Check all that apply):
	<input type="radio"/>	<input checked="" type="radio"/>	a. the need for more than 350 new employees?
	<input type="radio"/>	<input checked="" type="radio"/>	b. an increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round-trips per day?
	<input type="radio"/>	<input checked="" type="radio"/>	c. increase customer traffic by more than 700 visits per day?
Section V – Noise			
11.	<input type="radio"/>	<input checked="" type="radio"/>	Will the project include equipment that will generate noise GREATER THAN 90 decibels (dB) at the property line?
Section VI – Public Services			
12.			Will the project create a permanent need for new or additional public services in any of the following areas (Check all that apply):
	<input type="radio"/>	<input checked="" type="radio"/>	a. Solid waste disposal? Check "No" if the projected potential amount of wastes generated by the project is less than five tons per day.
	<input type="radio"/>	<input checked="" type="radio"/>	b. Hazardous waste disposal? Check "No" if the projected potential amount of hazardous wastes generated by the project is less than 42 cubic yards per day (or equivalent in pounds).
REMINDER: For each "Yes" checked in the sections above, attach all pertinent information including but not limited to estimated quantities, volumes, weights, etc.			
SIGNATURES			
I HEREBY CERTIFY THAT ALL INFORMATION CONTAINED HEREIN AND INFORMATION SUBMITTED WITH THIS APPLICATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND THAT THIS FORM IS A SCREENING TOOL AND THAT THE SCAQMD RESERVES THE RIGHT TO CONSIDER OTHER PERTINENT INFORMATION IN DETERMINING CEQA APPLICABILITY.			
SIGNATURE OF RESPONSIBLE OFFICIAL OF FIRM:		TITLE OF RESPONSIBLE OFFICIAL OF FIRM:	
		Manager, ECRA	
TYPE OR PRINT NAME OF RESPONSIBLE OFFICIAL OF FIRM:		RESPONSIBLE OFFICIAL'S TELEPHONE NUMBER:	DATE Signed:
Michael D. Moore		(714) 5937-450	10/8/07
SIGNATURE OF PREPARER, IF PREPARED BY PERSON OTHER THAN RESPONSIBLE OFFICIAL OF FIRM:		TITLE OF PREPARER:	
		Associate Engineer III	
TYPE OR PRINT NAME OF PREPARER:		PREPARER'S TELEPHONE NUMBER:	DATE Signed:
Tadeo G. Vitko		(714) 5937-442	9/6/07

THIS CONCLUDES FORM 400-CEQA. INCLUDE THIS FORM AND THE ATTACHMENTS WITH FORM 400-A.

⁴ Table 1 – Regulated Substances List and Threshold Quantities for Accidental Release Prevention can be found in the Instructions for Form 400-CEQA.

TABLE 1.1
SUMMARY OF RESULTS

Parameter	Units	CAT 3512	DD 9163-7305	DD T163-7K16
Stack Height Above Ground Level ⁽¹⁾	Fi	24.292	32.958	27.833
Stack Inside Diameter	In	11.75	12.875	15.25
Stack Flow Rate	ACFM	5,030	6,920	9,381
Stack Flow Rate @ 68 deg F, 29.92 in Hg	DSCFM	1,886	3,600	4,332
Stack Temp	Deg F	843	502	597
Stack Moisture Content	% Vol	7.4	4.7	7.0
Test Load	KW	440	386	1150
Horsepower (Rated @ Full Load)	BHP	1482	1515	2935
Horsepower (Estimated Actual Based on KW Output) ⁽²⁾	BHP	652	547	1688
PM Concentration ⁽³⁾	gr/DSCF	0.0224	0.0169	0.0103
PM Mass Emissions ⁽³⁾	Lb/Hr	0.36	0.52	0.38
PM Mass Emissions (Based on Rated BHP) ⁽³⁾	Gm/BHP-Hr	0.111	0.156	0.103
PM Mass Emissions (Based on Estimated Actual BHP) ⁽³⁾	Gm/BHP-Hr	0.252	0.434	0.059
O ₂ Concentration	% vd	11.59	16.40	12.30
CO ₂ Concentration	% vd	6.88	3.38	6.36
NO _x Concentration	ppmvd	1727	550	1356
NO _x Mass Emissions	Lb/Hr	23.33	14.18	42.08
NO _x Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	7.142	4.247	6.504
NO _x Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	16.233	11.762	11.308
CO Concentration	ppmvd	242	105	79
CO Mass Emissions	Lb/Hr	1.99	1.65	1.49
CO Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	0.609	0.493	0.231
CO Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	1.384	1.367	0.401
TGNMEO Concentration	ppmv	83.5	96.6	79.5
TGNMEO Mass Emissions	Lb/Hr	0.39	0.87	0.86
TGNMEO Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	0.120	0.259	0.133
TGNMEO Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	0.273	0.718	0.231

⁽¹⁾ Height was measured as best as possible; however ground level was sloped for CAT 3512 and DD 9163-7305 buildings.

⁽²⁾ Horsepower is estimated based on calculated efficiency of full load generator to horsepower rating. Manufacturer curves should be utilized to more accurately determine horsepower at the test load.

⁽³⁾ PM data is for the front-half (probe, nozzle and filter components). Additional PM data for the condensable fraction is provided in Appendix A.



South Coast Air Quality Management District

FORM 400-E-13a**EMERGENCY INTERNAL COMBUSTION ENGINE**Mail Application To:
SCAQMD
P.O. Box 4944
Diamond Bar, CA 91765

Tel: (909) 396-3385

www.sqmd.gov

This form must be accompanied by a completed Application for a Permit to Construct/Operate -Form 400A, Form CEQA, Plot Plan and Stack Form

Permit to be issued to (Business name of operator to appear on permit):

Orange County Sanitation District

Street location where the equipment will be operated (for equipment which will be moved to various location in AQMD's jurisdiction, please list the initial location site):

22212 Brookhurst Street, Huntington Beach, CA 9264

Section A: EQUIPMENT LOCATION

Internal Combustion Engine	Manufacturer: Detroit Diesel	Model No.: TI63-7K16	
	Serial No.: DD5272000531	Date of Manufacture: 01/01/1999 mm/dd/yyyy	For an ICE manufactured after 7/18/94, please provide manufacturer's specification and guarantee.
	Manufacturer Maximum Rating: 2935.00 BHP @ 1800 RPM	Date of Installation: 01/01/2000 mm/dd/yyyy	
ICE Emergency Function	<input checked="" type="radio"/> Electrical Generator <input type="radio"/> Fire Pump <input type="radio"/> Flood Control <input type="radio"/> Pump Driver <input type="radio"/> Compressor		
Type (Check All That Apply)	<input checked="" type="radio"/> Stationary <input type="radio"/> Portable How Is This Type of Equipment Used? (Check All That Apply) <input checked="" type="checkbox"/> Within Facility <input type="checkbox"/> Off- Site <input type="checkbox"/> Rental		
Fuel	<input checked="" type="radio"/> Diesel Oil No. 2 <input type="radio"/> LPG <input type="radio"/> Natural Gas <input type="radio"/> Other: _____		
Cycle Type	<input type="radio"/> Two Cycle <input checked="" type="radio"/> Four Cycle		
Combustion Type	<input type="radio"/> Lean Burn <input checked="" type="radio"/> Rich Burn		
No. of Cylinders	<input type="radio"/> Four <input type="radio"/> Six <input type="radio"/> Eight <input type="radio"/> Ten <input type="radio"/> Twelve <input checked="" type="radio"/> Sixteen <input type="radio"/> Other _____		
Aspiration Type	<input type="radio"/> Turbocharged <input checked="" type="radio"/> Turbocharged/Aftercooled <input type="checkbox"/> Timing Retarded $\geq 4^\circ$ (relative to standard timing) <input type="radio"/> Naturally Aspirated		
Air Pollution Control (if applicable)	<input type="radio"/> Selective Catalytic Reduction (SCR)* <input checked="" type="radio"/> No Control <input type="radio"/> Selective Non-catalytic Reduction (SNCR)* <input type="radio"/> Air Fuel Ratio Controller <input type="radio"/> Non-selective Catalytic Reduction (NSCR) <input type="radio"/> Other (specify) _____		
	* Separate application is required.		
	Manufacturer: _____	Model No.: _____	
If already permitted, indicate Permit No. <u>F21753</u>		Device No. <u>2 at PB-B</u>	

Section B: OPERATION INFORMATION:

Fuel Consumption	Maximum Rated load: _____ gal./hr. OR _____ cu. ft./hr.	Average Load: _____ gal./hr. or _____ cu. ft./hr.
Operating Schedule	Normal: _____ hours/day _____ days/week _____ weeks/yr.	
	Maximum: _____ hours/day _____ days/week _____ weeks/yr.	
	Testing & Maintenance: _____ hours/year	

CONFIDENTIAL INFORMATION

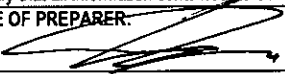
Under the California Public Records Act, all information in your permit application will be considered a matter of public record and may be disclosed to a third party. If you wish to keep certain items as confidential, please complete the following steps:

- Make a copy of any page containing confidential information blanked out. Label this page "public copy."
- Label the original page "confidential." Circle all confidential items on the page.
- Prepare a written justification for the confidentiality of each confidential item. Append this to the confidential copy.

South Coast Air Quality Management District
Emergency Internal Combustion Engine

Engine Data	<p>(1) Select year of manufacture and rated horsepower.</p> <p>(2) Provide actual emission figures from manufacturing specifications (if available) for the Rated Power selected. If engine fuel is LPG or Natural Gas, select Spark Ignition.</p> <p>(3) The compression ignited diesel fuel internal combustion engine (ICE's) must meet the State of California or EPA's Non-Road Emission Standards as listed below (please provide manufacturer's specification and guarantee.</p>						
	Rated Power	Year	Figures	Carbon Monoxide (grams/bhp-hr)	Hydrocarbons (grams/bhp-hr)	Oxides of Nitrogen (grams/bhp-hr)	Particulate Matter (grams/bhp-hr)
Compressor Ignition							
50 - 750 H.P.							
○	50 - 100 H.P.	BACT	8.5	1.0	6.9	0.38	
		Actual	_____	_____	_____	_____	
	100 - 175 H.P.	BACT	8.5	1.0	6.9	0.38	
		Actual	_____	_____	_____	_____	
	175 - 750 H.P.	BACT	2.6	1.0	3.8	0.15	
		Actual	_____	_____	_____	_____	
751 and greater H.P.							
○	2000 and	BACT	8.5	1.0	6.9	0.38	
		Actual	_____	_____	_____	_____	

	Figures	VOC	NOx	CO
Spark Ignition	For natural gas fired or LPG. The ICE must meet the requirements for BACT as listed below.			
○	BACT	1.5 grams/bhp-hr	1.5 grams/bhp-hr	2.0 grams/bhp-hr
	Actual	_____	_____	_____

Section C: APPLICANT CERTIFICATION STATEMENT		
I hereby certify that all information contained herein and information submitted with this application is true and correct.		
SIGNATURE OF PREPARER:	TITLE OF PREPARER:	
	Associate Engineer III	
CONTACT PERSON FOR INFORMATION ON THIS EQUIPMENT :	CONTACT PERSON'S TELEPHONE NUMBER	DATE SIGNED:
Vladimir Kogan	(714) 593-7085	9/6/07



Engr. Init.	
A/N	
Appln Date:	
Class	

Data Input

Applicant	Orange County Sanitation District	ID	
Mailing Address	10844 Ellis Avenue, Fountain Valley, CA 92708		
Equipment Location	22212 Brookhurst Street, Huntington Beach, CA 9264	Equipment Type	Fixed site
Equipment Description	Manufacturer:	Detroit Diesel	
	Model No:	T163-7K16	
	Serial No.:	DD5272000531	
	Manufacturer Date:	01/01/1999	
	Installation Date:	01/01/2000	
	Cylinders:	Sixteen	
	HP Rating:	2935.00	

Aspiration Type	Turbocharged	Turbocharged/Aftercooled	Naturally Aspirated
	0	X	0
	Turbocharged/Aftercooled		

Driving (ICE Emergency Function)	Generator	Compressor	Pump
	X	0	0
	Electrical Generator		

Emission Factors, g/HP-hr	VOC	NOx	CO	PM
	(Note: Emission factors taken from engine manufacturer specs included with application)			

Retard Timing	Yes	No

Operating Schedule	Hrs/Day Max.		Hrs/Month Max	
	Hrs/Day Ave.		Wks/Yr	
	Days/Wk.			
	Days/Mo			



A/N: _____

Given

HP	2935.00					
G to lb conversion factor	0.0022046					
Operating Schedule	Hrs/Day Max.					
	Hrs/Day Avg.					
	Days/Wk.					
	Days/Mo.					
	Hrs/Month Max.					
	Wks/Yr.					
Emission Factors	VOC	NOx	SOx	CO	PM	PM10
			0.160			
Retard Timing	Yes	No				
Emission Correction Factor	VOC	NOx	SOx	CO	PM	PM10
	1.000		1.000		1.000	1.000

Computations

	Emission factor, g/HP-hr	VOC	NOx	SOx	CO	PM	PM10
				0.160			
	lb/hr.			1.035			
	lb/day Max.						
	lb/day Avg.						
	lb/yr.						

SCAQM PERMIT PROCESSING SYSTEM (PPS)

FEE DATA - SUMMARY SHEET

Application No : 474769

IRS/SS No:

Previous Application No: 357971

Previous Permit No: F21753

Company Name : ORANGE COUNTY SANITATION DISTRICT

Facility ID: 29110

Equipment Street: 22212 BROOKHURSTST , HUNTINGTON BEACH CA 92646

Equipment Desc : I C E (>500 HP) EM ELEC GEN DIESEL

Equipment Type : BASIC

Fee Charged by: B-CAT

B-CAT NO. : 043902

C-CAT NO: 00

Fee Schedule: B

Facility Zone : 18

Deemed Compl. Date: 10/31/2007

Public Notice: NO

Evaluation Type : CHANGE OF CONDITIONS, (PO)

Small Business: ☐

Disposition : Approve PO, Recommended by Engineer

Penalty: ☐

Lead Appl. No : 474769

Identical Permit Unit: ☒

Air quality Analysis

Filing Fee Paid: \$0.00

E.I.R

Permit Processing Fee Paid: \$923.92

Health Risk Assessment

Permit Processing Fee
Calculated*: \$923.92

Significant Project

Permit Processing
Fee Adjustment: \$0.00

Expedited Processing

Hours:

Source Test Review

Hours:

Time & Material

Hours:

Total Additional Fee: \$0.00

Additional Charge: \$0.00

COMMENTS:

RECOMMENDED BY: GAURANG RAWAL

DATE: 11/02/2007

REVIEWED BY: CDLDATE: 2/28/07

* ADJUSTED FOR SMALL BUSINESS, IDENTICAL EQUIPMENT AND P/O NO P/C PENALTY

SCAQMD PERMIT PROCESSING SYSTEM (PPS)

AEIS DATA SHEET

Company Name : ORANGE COUNTY SANITATION DISTRICT
 Equipment Address : 22212 BROOKHURST ST
 HUNTINGTON BEACH CA 92646

Facility ID : 29110

Application Number : 474769
 Estimated Completion Date : 02/27/08

Equipment B-Cat : 043902

Equipment C-Cat :

Equipment Type : Basic

Equipment Description : I C E (>500 HP) EM ELEC GEN DIESEL

Emittants	Emissions	
	R1 LB/HR	R2 LB/HR
CO	6.03	6.03
NOX	46.74	46.74
PM10	0.64	0.64
ROG	2.87	2.87
SOX	0.03	0.03

Applicable Rules

1470	06/01/2007	Requirements for Stationary Diesel-Fueled Internal Combustion and Other
401	11/09/2001	Visible Emissions
402	05/07/1976	Nuisance
404	02/07/1986	Particulate Matter - Concentration
431.2	09/15/2000	Sulfur Content of Liquid Fuels

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Daily Start Times :	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Daily Stop Times :	01:00	00:00	00:00	00:00	00:00	00:00	00:00

User's Initials : GR01

Date: 02/27/08

Supervisor's Name :

CDT

Review Date : 2-28-07

NSR DATA SUMMARY SHEET

Application No: 474769
Application Type: Change of Conditions
Application Status: PROCESSING
Previous Apps, Dev, Permit #: 357971, 0 - ICE-PPS, NONE

Company Name: ORANGE COUNTY SANITATION DISTRICT
Company ID: 29110
Address: 22212 BROOKHURST ST, HUNTINGTON BEACH, CA
RECLAIM: NO
RECLAIM Zone: 01
Air Basin: SC
Type: 18
Use V: NO

Device ID: 0 - ICE-PPS
Estimated Completion Date: 12-30-2007
Heat Input Capacity: 0 Million BTU/hr
Priority Reserve: NONE - No Priority Access Requested
Recommended Disposition: 31 - PERMIT TO OPERATE GRANTED
PR Expiration:
School Within 1000 Feet: NO
Operating Weeks Per Year: 50
Operating Days Per Week: 1
Monday Operating Hours: 00:00 to 01:00
Tuesday Operating Hours: 00:00 to 00:00
Wednesday Operating Hours: 00:00 to 00:00
Thursday Operating Hours: 00:00 to 00:00
Friday Operating Hours: 00:00 to 00:00
Saturday Operating Hours: 00:00 to 00:00
Sunday Operating Hours: 00:00 to 00:00

Emittant: CO
BACT:
Cost Effectiveness: NO
Source Type: MAJOR
Emis Increase: 0
Modeling: N/A
Public Notice: N/A
CONTROLLED EMISSION
Max Hourly: 6.03 lbs/hr
Max Daily: 6.03 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 6.03 lbs/hr
Max Daily: 24.12 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 1 lbs/day
Annual Emission: 301.5 lbs/yr
District Exemption: None

Emittant: NOX
BACT:
Cost Effectiveness: NO
Source Type: MAJOR
Emis Increase: 0
Modeling: N/A
Public Notice: N/A
CONTROLLED EMISSION
Max Hourly: 46.74 lbs/hr
Max Daily: 46.74 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 46.74 lbs/hr
Max Daily: 186.96 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 7 lbs/day
Annual Emission: 2337 lbs/yr
District Exemption: None

Emittant: PM10
BACT:
Cost Effectiveness: NO
Source Type: MINOR
Emis Increase: 0
Modeling: N/A
Public Notice: N/A
CONTROLLED EMISSION
Max Hourly: 0.64 lbs/hr
Max Daily: 0.64 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 0.64 lbs/hr
Max Daily: 2.56 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 0 lbs/day
Annual Emission: 32 lbs/yr
District Exemption: None

Emittant: ROG
BACT:
Cost Effectiveness: NO
Source Type: MINOR
Emis Increase: 0
Modeling: N/A
Public Notice: N/A
CONTROLLED EMISSION
Max Hourly: 2.87 lbs/hr
Max Daily: 2.87 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 2.87 lbs/hr
Max Daily: 11.48 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 0 lbs/day
Annual Emission: 143.5 lbs/yr
District Exemption: None

Emittant: SOX
BACT:
Cost Effectiveness: NO
Source Type: MINOR
Emis Increase: 0
Modeling: N/A
Public Notice: N/A
CONTROLLED EMISSION
Max Hourly: 0.03 lbs/hr
Max Daily: 0.03 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 0.03 lbs/hr
Max Daily: 0.12 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 0 lbs/day
Annual Emission: 1.5 lbs/yr
District Exemption: None

SUPERVISOR'S APPROVAL: CD SUPERVISOR'S REVIEW DATE: 2/26/07

Processed By: amird 2/27/2008 10:11:04 AM

PERMIT TO OPERATE

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for the annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner
or Operator:

ID 29110

ORANGE COUNTY SANITATION DISTRICT
P O BOX 8127
FOUNTAIN VALLEY, CA 92728-8127

Equipment Location: 22212 BROOKHURST ST, HUNTINGTON BEACH, CA 92646-8457

Equipment Description :

INTERNAL COMBUSTION ENGINE, NO. 2 AT PB-B, DETROIT DIESEL, 16 CYLINER,
TURBOCHARGED, AFTERCOOLED, MODEL T163-7K16, 2935 BHP, SERIAL NUMBER DD5272000531,
DIESEL -FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions :

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
4. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
5. THE OPERATION OF THE ENGINE BEYOND 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
6. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.

*deleted
in PPS
COT*

SAMPLE

PERMIT TO OPERATE

- 7.6. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
- A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)
- IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
- 8.1. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

By Dorris M.Bailey/GR01

SAMPLE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	1	of	2
ENGINEERING AND COMPLIANCE	A/N			474769
APPLICATION PROCESSING AND CALCULATIONS	PROCESSED BY		GCR	
	CHECKED BY			
	DATE			11/2/2007

Applicant's Name: ORANGE CO. SAN DIST (OCSD)
Mailing Address: 10844 ELLIS AVE
 FOUNTAIN VALLEY, CA 92708

Equipment Location: 22212 HUNTINGTON ST, HUNTINGTON BEACH, CA 92646

Equipment Description:

INTERNAL COMBUSTION ENGINE
 MANUFACTURER: DETROIT DIESEL #2
 MODEL NO.: T163-7K16
 FUELED WITH: DIESEL
 DRIVING: EMERGENCY GENERATOR
 SERIAL NO.: ~~NA~~ DD5272000531
 CYLINDERS: 16
 ASPIRATION: TURBOCHARGED AND AFTERCOOLED
 HP RATING: 2935

HISTORY/PROCESS DESCRIPTION:

Application date: 10/19/2007
 Class: 3

The application was filed for change of permit condition for R1470 Compliance. The company conducted source tests to allow more hours for testing and maintenance. With 0.103gm/bhp-hr of PM, the company is allowed 50 hrs. PM test results are on file and were reviewed.

CALCULATIONS:

See ATTACHMENT A.

EVALUATION:

Rule 212:

This is not a significant project, no school within 1000', emis below daily threshold. Public notice is not required.

Rule 401:

Based on experience with similar equipment, this engine is expected to comply with the visible emission limits.

Rule 402:

Based on experience with similar equipment, nuisance complaints are not expected.

Rule 404:

Based on experience with similar equipment, compliance with this rule is expected.

Rule 431.2:

Diesel fuel supplied to this equipment must contain 0.0015% or less sulfur by weight. Compliance is expected.

REGULATION XIII: New Source Review (Amended December 6, 2002)

There is reduction in PM emission. Therefore, the requirements of this rule do not apply.

RULE 1401: Exempt as per section (g)(1)(F)

Rule 1470: Equipment can operate up to 30 hrs/yr for maintenance and testing based on S/T PM result of 0.103 gm/bhp-hr, Rule 1470 (3) (C) (ii) (I), amended June 1, 2007. Compliance is expected. *This engine can meet R1470 requirements for DRP-ISC engine cat*

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGE	2	of 2
<i>ENGINEERING AND COMPLIANCE</i>	A/N		474769
APPLICATION PROCESSING AND CALCULATIONS	PROCESSED BY		GCR
	CHECKED BY		
	DATE		11/2/2007

DISCUSSIONS:

Based on the information submitted with the application, the engine will operate:

☐ in violation of BACT.

☒ in compliance with all the applicable Rules and Regulations of the District.

CONDITIONS

- 1 OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED.
 - 2 THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITIONS AT ALL TIMES.
- REFER TO SAMPLE PERMIT FOR OTHER CONDITIONS.**

ATTACHMENT A

A/N

474769

Emergency ICEs

Given:

HP 2,935
 g to lb conversion factor 0.0022046
 Operating schedule
 hrs/day Max. 1
 hrs/day Avg. 1
 days/wk 1
 hrs/month Max. 4
 wks/yr 50

	VOC	NOx	SOx	CO	PM	PM10
Emission factors			0.0049		0.103	0.10

	Yes	No
Retard Timing	0	X

	VOC	NOx	SOx	CO	PM	PM10
Emission correction factor	1	1	1	1	1	1

Computations:

	VOC	NOx	SOx	CO	PM	PM10
Emission factor, g/HP-hr	0	0.00	0.0049	0.00	0.103	0.10
lb/hr	0.00	0.00	0.03	0.00	0.67	0.64
lb/day Max.	0	0	0	0	1	1
lb/day Avg.	0	0	0	0	0	0
lb/yr	-	-	1.62	-	33.99	32.63

VOC= 2.87 lbs/hr, NOx= 46.74 lbs/hr, and CO = 6.03 lbs/hr, kept same as under previous PO F21753

Data Inputs

ENGR. INI.	GCR
A/N	474769
Appln Date:	10/19/2007
Class:	3

Applicant: ORANGE CO. SAN DIST (OCSD)
Mailing address: 10844 ELLIS AVE
FOUNTAIN VALLEY, CA 92708

Equipment Address: 22212 HUNTINGTON ST, HUNTINGTON BEACH, CA 92646

MANUFACTURER: DETROIT DIESEL # 2
MODEL NO.: T163-7K16
SERIAL NO.: DD5272 NA000531
CYLINDERS: 16
HP RATING: 2935

Turbocharged	Turbocharged/ Aftercooled	Naturally Aspirated
	X	

TURBOCHARGED AND AFTERCOOLED

Driving:

Generator	Compressor	Pump
X		

GENERATOR

	VOC	NOx	CO	PM*
Emission Factors, g/HP-hr				0.103

AP-42 * S/test

	Yes	No
Retard Timing	0	X

Operating schedule

hrs/day Max.	1
hrs/day Avg.	1
days/wk	1
hrs/month Max.	4
wks/yr	50

N S R D A T A S U M M A R Y S H E E T

Application No: 357971
Application Type: Form 400A-R2 Registration
Application Status: PENDAPPRV
Previous Apps, Dev, Permit #: NONE

Company Name: ORANGE, COUNTYOF - SANITATION DISTRICT
Company ID: 29110
Address: 22212 BROOKHURST ST, HUNTINGTON BEACH, CA
RECLAIM: NO
RECLAIM Zone: 01
Air Basin: SC
Zone: 18
Title V: YES

Device ID: 0 -
Estimated Completion Date: 11-05-1999
Heat Input Capacity: 0 Million BTU/hr
Priority Reserve: NONE - No Priority Access Requested
Recommended Disposition: 31 - PERMIT TO OPERATE GRANTED
PR Expiration:
School Within 1000 Feet: NO
Operating Weeks Per Year: 50
Operating Days Per Week: 1
Monday Operating Hours: 08:00 to 12:00
Tuesday Operating Hours: 00:00 to 00:00
Wednesday Operating Hours: 00:00 to 00:00
Thursday Operating Hours: 00:00 to 00:00
Friday Operating Hours: 00:00 to 00:00
Saturday Operating Hours: 00:00 to 00:00
Sunday Operating Hours: 00:00 to 00:00

Emittant:	CO
BACT:	
Cost Effectiveness:	NO
Source Type:	MAJOR
Emis Increase:	3 lbs/day
Modeling:	N/A
Public Notice:	NA
CONTROLLED EMISSION	
Max Hourly:	6.03 lbs/hr
Max Daily:	24.12 lbs/day
UNCONTROLLED EMISSION	
Max Hourly:	6.03 lbs/hr
Max Daily:	24.12 lbs/day
CURRENT EMISSION	
BACT 30 days Avg:	3 lbs/day
Annual Emission:	175 lbs/yr
District Exemption:	1304(a)(4)-10/12/1995-Emergency Equipment

Emittant:	NOX
BACT:	
Cost Effectiveness:	NO
Source Type:	MAJOR
Emis Increase:	27 lbs/day
Modeling:	N/A
Public Notice:	NA
CONTROLLED EMISSION	
Max Hourly:	46.74 lbs/hr
Max Daily:	186.96 lbs/day
UNCONTROLLED EMISSION	
Max Hourly:	46.74 lbs/hr
Max Daily:	186.96 lbs/day
CURRENT EMISSION	
BACT 30 days Avg:	27 lbs/day
Annual Emission:	1355 lbs/yr
District Exemption:	1304(a)(4)-10/12/1995-Emergency Equipment

Emittant:	PM
BACT:	
Cost Effectiveness:	NO
Source Type:	MINOR
Emis Increase:	0 lbs/day
Modeling:	N/A
Public Notice:	NA
CONTROLLED EMISSION	
Max Hourly:	0.44 lbs/hr
Max Daily:	1.76 lbs/day
UNCONTROLLED EMISSION	
Max Hourly:	0.44 lbs/hr
Max Daily:	1.76 lbs/day
CURRENT EMISSION	
BACT 30 days Avg:	0 lbs/day
Annual Emission:	12.5 lbs/yr
District Exemption:	None

Emittant:	PM10
BACT:	
Cost Effectiveness:	NO
Source Type:	MINOR
Emis Increase:	0 lbs/day
Modeling:	N/A
Public Notice:	NA
CONTROLLED EMISSION	
Max Hourly:	0.42 lbs/hr
Max Daily:	1.68 lbs/day
UNCONTROLLED EMISSION	
Max Hourly:	0.42 lbs/hr
Max Daily:	1.68 lbs/day
CURRENT EMISSION	
BACT 30 days Avg:	0 lbs/day
Annual Emission:	12 lbs/yr
District Exemption:	None

Emittant: ROG
BACT:
Cost Effectiveness: NO
Source Type: MINOR
Emis Increase: 2 lbs/day
Modeling: N/A
Public Notice: NA
CONTROLLED EMISSION
Max Hourly: 2.87 lbs/hr
Max Daily: 11.48 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 2.87 lbs/hr
Max Daily: 11.48 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 2 lbs/day
Annual Emission: 83 lbs/yr
District Exemption: 1304(a)(4)-10/12/1995-Emergency Equipment

Emittant: SOX
BACT:
Cost Effectiveness: NO
Source Type: MINOR
Emis Increase: 1 lbs/day
Modeling: N/A
Public Notice: NA
CONTROLLED EMISSION
Max Hourly: 1.19 lbs/hr
Max Daily: 4.76 lbs/day
UNCONTROLLED EMISSION
Max Hourly: 1.19 lbs/hr
Max Daily: 4.76 lbs/day
CURRENT EMISSION
BACT 30 days Avg: 1 lbs/day
Annual Emission: 34 lbs/yr
District Exemption: 1304(a)(4)-10/12/1995-Emergency Equipment

SUPERVISOR'S APPROVAL:



SUPERVISOR'S REVIEW DATE: 8/20/99

F21753

Processed By: gaurangr 8/17/99 1:10:58 PM



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, CA 91765

PERMIT TO CONSTRUCT/OPERATE

page 1
Permit No.
R-F21753
A/N 357971

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

LEGAL OWNER
OR OPERATOR:

ORANGE, COUNTY OF - SANITATION DISTRICT
P O BOX 8127
FOUNTAIN VALLEY, CA 92728-8127

ID 029110

Equipment Location: 22212 BROOKHURST ST, HUNTINGTON BEACH, CA 92646-8457

Equipment Description:

INTERNAL COMBUSTION ENGINE, DETROIT DIESEL, 16 CYLINDER, TURBOCHARGED, AFTERCOOLED,
MODEL T163-7K16, 2935 BHP, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
- 3) THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY CALENDAR YEAR.
- 4) A NON-RESETTABLE TOTALIZING TIMER SHALL BE INSTALLED AND MAINTAINED, IN GOOD OPERATING CONDITION, TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
- 5) AN ENGINE OPERATING LOG, LISTING THE DATE OF OPERATION, THE ELAPSED TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
- 6) SULFUR CONTENT OF DIESEL FUEL SUPPLIED TO THIS ENGINE SHALL NOT EXCEED 0.05% BY WEIGHT.

THIS PERMIT TO CONSTRUCT/OPERATE R-F21753 SUPERSEDES PERMIT TO CONSTRUCT/OPERATE F21753 ISSUED 8/20/1999.

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

FILE COPY

SCAQMD COMPUTER ASSISTED PERMIT PROCESSING (CAPPS)

AEIS DATA SHEET

Company Name : ORANGE, COUNTY OF - SANITATION DISTRICT
Equipment Address : 22212 BROOKHURST ST, HUNTINGTON BEACH, CA 92646

Facility ID : 029110

APPLICATION NUMBER : 357971
ESTIMATED COMPLETION DATE : 11/05/1999
EQUIPMENT TYPE : BASIC
EQUIPMENT DESCRIPTION : I C E (> 500 HP) EM ELEC GEN DIESEL

EQUIPMENT B-CAT : 043902
EQUIPMENT C-CAT : 00

EMITTANTS	EMISSIONS	
	R1 (LB/HR)	R2 (LB/HR)
CO	601	601
NOX	472	472
PM	440	440
ROG	291	291
SOX	121	121

APPLICABLE RULES

401	402
404	431.2
1303	

WEEKS/YEAR: 50	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Daily Start Times:	8:00	:	:	:	:	:	:
Daily Stop Times:	12:00	:	:	:	:	:	:

User's Initials: GR01

Date: 8/17/1999

Supervisor's Name:

ClaytonReview Date: 8/20/99

Gaurang Rawal

From: Vitko, Ted [TVITKO@OCSD.COM]
Sent: Monday, November 05, 2007 9:57 AM
To: Gaurang Rawal
Subject: OCSD P2 Diesel Engine Information

Hi Gaurang,

Here's the information you requested over the phone. Let me know if you have any other question. Thanks

	Equipment	Permit #	Serial #	Model #
Detroit Diesel No.1	Power Building B	R-F21752	DD5272000532	T163-7K16
Detroit Diesel No.2	Power Building B	R-F21753	DD5272000531	T163-7K16

Ted Vitko

At Quality Compliance

Extension 7442

11/6/2007

Gaurang Rawal

From: Vitko, Ted [TVITKO@OCS.D.COM]
Sent: Wednesday, October 31, 2007 4:06 PM
To: Gaurang Rawal
Subject: PM Data from Source Testing of Diesel Engines



Document.pdf (4
MB)

Hi Gaurang,

Sorry for the confusion. What I sent you initially was the latest source testing data we did to the newest engines. This one is for those engines we're requesting additional maintenance hours based on PM data. Let me know if you need anything else. Thanks

Ted Vitko
Air Quality Compliance
Extension 7442



SCEC

**ORANGE COUNTY SANITATION DISTRICT
PLANT NO. 2 EMERGENCY DIESEL GENERATORS
2004 ENGINEERING SOURCE TEST REPORT**

PREPARED FOR:

Orange County Sanitation District
Post Office Box 8127
10844 Ellis Avenue
Fountain Valley, California 92728-8127

EQUIPMENT LOCATION:

Plant No. 2
Internal Combustion Engine Emergency Diesel-Fired Generators
Huntington Beach Wastewater Treatment Facility
Huntington Beach, California

TEST DATES:

June 15-17, 2004

ISSUE DATE:


July 15, 2004

PREPARED BY:

Mr. Michael W. Bell
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Report No: 2061.1014.rpt1

Tested By:


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Reviewed By:


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**TABLE 1.1
SUMMARY OF RESULTS**

Parameter	Units	CAT 3512	DD 9163-7305	DD T163-7K16
Stack Height: Above Ground Level ⁽¹⁾	Ft	24.292	32.958	27.833
Stack Inside Diameter	In	11.75	12.875	15.25
Stack Flow Rate	ACFM	5,030	6,920	9,381
Stack Flow Rate @ 68 deg F, 29.92 in Hg	DSCFM	1,886	3,600	4,332
Stack Temp	Deg F	843	502	597
Stack Moisture Content	% Vol	7.4	4.7	7.6
Test Load	KW	440	386	1150
Horsepower (Rated @ Full Load) →	BHP	1482	1515	→ 2935
Horsepower (Estimated Actual Based on KW Output) ⁽²⁾	BHP	652	547	→ 1688 → 58% load
PM Concentration ⁽³⁾	gr/DSCF	0.0224	0.0169	0.0103
PM Mass Emissions ⁽³⁾	Lb/Hr	0.36	0.52	0.33
PM Mass Emissions (Based on Rated BHP) ⁽³⁾	Gm/BHP-Hr	0.111	0.156	0.103 @ 1688 BHP
PM Mass Emissions (Based on Estimated Actual BHP) ⁽³⁾	Gm/BHP-Hr	0.252	0.434	0.059
O ₂ Concentration	% vd	11.59	16.40	12.30
CO ₂ Concentration	% vd	6.88	3.38	6.36
NO _x Concentration	ppmvd	1727	550	1356
NO _x Mass Emissions	Lb/Hr	23.33	14.18	42.08
NO _x Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	7.142	4.247	6.504
NO _x Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	16.233	11.762	11.308
CO Concentration	ppmvd	242	105	79
CO Mass Emissions	Lb/Hr	1.99	1.65	1.49
CO Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	0.609	0.493	0.231
CO Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	1.384	1.367	0.401
TGNMEO Concentration	ppmv	83.5	96.6	79.5
TGNMEO Mass Emissions	Lb/Hr	0.39	0.87	0.86
TGNMEO Mass Emissions (Based on Rated BHP)	Gm/BHP-Hr	0.120	0.259	0.133
TGNMEO Mass Emissions (Based on Estimated Actual BHP)	Gm/BHP-Hr	0.273	0.718	0.231

⁽¹⁾ Height was measured as best as possible; however ground level was sloped for CAT 3512 and DD 9163-7305 buildings.

⁽²⁾ Horsepower is estimated based on calculated efficiency of full load generator to horsepower rating. Manufacturer curves should be utilized to more accurately determine horsepower at the test load.

⁽³⁾ PM data is for the front-half (probe, nozzle and filter components). Additional PM data for the condensable fraction is provided in Appendix A.

SUMMARY OF PARTICULATE EMISSIONS

Date: June 17, 2004					
Client: OESD					
Site: Plant 2 DD T163-7K16 EG Exhaust					
PARTICULATE TYPE	SYMBOL	UNITS	RUN 1	RUN 2	AVERAGE
FILTERABLE PARTICULATE					
NET MILLIGRAMS	mg	mg	28.6	24.9	26.8
CONCENTRATION	Csd	gr/SDCF	0.0110	0.0096	0.0103
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0208	0.0181	0.0194
EMISSION RATE	E.R.	LB/HR	0.41	0.35	0.38
EMISSION RATE	E.R.	LB/DAY	9.88	8.49	9.19
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.111	0.095	0.103
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.064	0.055	0.059
CONDENSABLE PARTICULATE					
NET MILLIGRAMS	mg	mg	19.7	25.8	22.8
CONCENTRATION	Csd	gr/SDCF	0.0076	0.0099	0.0088
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0143	0.0188	0.0165
EMISSION RATE	E.R.	LB/HR	0.28	0.37	0.33
EMISSION RATE	E.R.	LB/DAY	6.81	8.82	7.81
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.076	0.099	0.087
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.044	0.057	0.050
ORGANIC PARTICULATE					
NET MILLIGRAMS	mg	mg	NA	NA	NA
CONCENTRATION	Csd	gr/SDCF	NA	NA	NA
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	NA	NA	NA
EMISSION RATE	E.R.	LB/HR	NA	NA	NA
EMISSION RATE	E.R.	LB/DAY	NA	NA	NA
TOTAL PARTICULATE					
NET MILLIGRAMS	mg	mg	48.3 ✓	50.7 ✓	49.5 ✓
CONCENTRATION	Csd	gr/SDCF	0.0136	0.0195	0.0191
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0352	0.0368	0.0360
EMISSION RATE	E.R.	LB/HR	0.70	0.72	0.71
EMISSION RATE	E.R.	LB/DAY	16.68	17.31	17.00
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.187	0.194	0.190
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.107	0.111	0.109

Note: NA = Not Applicable

⁽¹⁾ Calculated based on estimated horsepower during test.

⁽²⁾ Calculated based on full load rated horsepower listed in permit.

0.71 lb/hr
- 0.33 condens
0.38 lb/hr

2 ↑

PARTICULATE LABORATORY DATA

Date: June 17, 2004 Client: OCSD Site: Plant 2 DD T163-7K16 EG Exhaust								
Run No.	Type	Total Sample Vol. (ml)	Aliquot Vol. (ml)	Vlc less Silica gel Vol. (ml)	Gross Wt. (g)	Tare Wt. (g)	Uncorrected Final Wt. (mg)	Corrected Final Wt. (mg)
Blank	Acetone	150	-----	-----	103.0094	103.0094	0.00	-----
Blank	H2O	200	-----	-----	99.9375	99.9370	0.50	-----
Blank	MeCl2	NA	-----	-----	NA	NA	NA	-----
1	Filter	-----	-----	-----	0.5303	0.5145	15.80	15.80
	Front Half Rinses	185	185	-----	106.2054	106.1926	12.80	12.80
	Condensables	450	450	54.9	86.5098	86.4891	20.70	19.71
	Organics	NA	NA	NA	NA	NA	NA	NA
	Total	-----	-----	-----	-----	-----	49.30	48.31 ✓
2	Filter	-----	-----	-----	0.5101	0.4960	14.10	14.10
	Front Half Rinses	205	205	-----	103.0924	103.0816	10.80	10.80
	Condensables	440	440	56.7	98.6282	98.6014	26.80	25.84
	Organics	NA	NA	NA	NA	NA	NA	NA
	Total	-----	-----	-----	-----	-----	51.70	50.74 ✓

Note: NA = Not Applicable for the test program.

SUMMARY OF PARTICULATE EMISSIONS

Date: June 15, 2004		Client: OCSD		Site: Plant 2 CAT 3512 EG Exhaust	
PARTICULATE TYPE	SYMBOL	UNITS	RUN 1	RUN 2	AVERAGE
FILTERABLE PARTICULATE					
NET MILLIGRAMS	mg	mg	52.4	52.3	52.3
CONCENTRATION	Csd	gr/SDCF	0.0227	0.0221	0.0224
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0396	0.0386	0.0391
EMISSION RATE	E.R.	LB/HR	0.36	0.36	0.36
EMISSION RATE	E.R.	LB/DAY	8.67	8.70	8.68
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.251	0.252	0.252
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.111	0.111	0.111
CONDENSABLE PARTICULATE					
NET MILLIGRAMS	mg	mg	11.5	19.4	15.5
CONCENTRATION	Csd	gr/SDCF	0.0050	0.0082	0.0066
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0087	0.0144	0.0115
EMISSION RATE	E.R.	LB/HR	0.08	0.13	0.11
EMISSION RATE	E.R.	LB/DAY	1.90	3.23	2.57
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.055	0.094	0.074
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.024	0.041	0.033
ORGANIC PARTICULATE					
NET MILLIGRAMS	mg	mg	NA	NA	NA
CONCENTRATION	Csd	gr/SDCF	NA	NA	NA
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	NA	NA	NA
EMISSION RATE	E.R.	LB/HR	NA	NA	NA
EMISSION RATE	E.R.	LB/DAY	NA	NA	NA
TOTAL PARTICULATE					
NET MILLIGRAMS	mg	mg	63.9	71.7	67.8
CONCENTRATION	Csd	gr/SDCF	0.0276	0.0303	0.0290
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0483	0.0530	0.0506
EMISSION RATE	E.R.	LB/HR	0.44	0.50	0.47
EMISSION RATE	E.R.	LB/DAY	10.57	11.93	11.25
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.306	0.346	0.326
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.135	0.152	0.144

Note: NA = Not Applicable

⁽¹⁾ Calculated based on estimated horsepower during test.

⁽²⁾ Calculated based on full load rated horsepower listed in permit.

SUMMARY OF PARTICULATE SOURCE TEST DATA AND CALCULATIONS

Date:	06/15/04						
Client:	OCS D						
Site:	Plant 2 CAT 3512 EG Exhaust						
MEASURED SOURCE PARAMETERS			SYMBOL	UNITS	RUN 1	RUN 2	AVERAGE
STACK DIAMETER	Ds	IN	11.75	11.75	11.75		
STACK AREA	Ds	FT^2	0.75	0.75	0.75		
BAROMETRIC PRESSURE	Pbar	IN. Hg.	29.94	29.94	29.94		
STATIC PRESSURE	Pstat	IN. H2O	-0.650	-0.640	-0.645		
STACK PRESSURE	Ps	IN. Hg	29.89	29.89	29.89		
AVERAGE STACK TEMPERATURE	Ts	DEG. F	844.1	841.0	842.6		
AVERAGE SQ. ROOT VELOCITY PRESSURE	dP	IN. H2O	1.276	1.309	1.292		
SAMPLING PARAMETERS							
STANDARD TEMPERATURE	Tstd	DEG. F	68.0	68.0	68.0		
STANDARD PRESSURE	Pstd	IN. Hg	29.92	29.92	29.9		
PERCENT CARBON DIOXIDE	CO2	%	6.9	6.9	6.9		
PERCENT OXYGEN	O2	%	11.6	11.6	11.6		
PITOT CORRECTION FACTOR	Cp		0.818	0.818	0.818		
NOZZLE DIAMETER	Dn	IN	0.212	0.212	0.212		
NOZZLE DIAMETER	Dn	FT^2	0.00025	0.00025	0.00025		
SAMPLING TIME	t	MIN.	60.0	60.0	60.0		
GAS VOLUME SAMPLED	Vm	DCF	36.750	37.914	37.332		
WATER VAPOR COLLECTED	Vlc	GRAMS	61.6	60.9	61.3		
DRY GAS METER CORRECTION FACTOR	Y		1.0002	1.0002	1.0002		
DRY GAS METER TEMPERATURE	Tm	DEG. F	86.0	90.4	88.2		
ORIFICE PRESSURE	dH	IN. H2O	1.07	1.13	1.10		
CALCULATED RESULTS							
CORRECTED GAS VOLUME SAMPLED	Vmstd	DSCF	35.663	36.503	36.083		
VOLUME OF WATER CONDENSED	Vwstd	SCF	2.91	2.875	2.89		
MOISTURE CONTENT OF FLUE GAS	Bws	%	7.54	7.30	7.42		
DRY MOLECULAR WEIGHT OF FLUE GAS	MW dry	lb/lb-mole	29.56	29.56	29.56		
WET MOLECULAR WEIGHT OF FLUE GAS	MW wet	lb/lb-mole	28.69	28.72	28.71		
FLUE GAS VELOCITY	Vs	ft/sec	110.01	112.65	111.33		
FLUE GAS FLOW RATE (ACTUAL CONDITIONS)	ACFM	ACFM	4,970	5,089	5,030		
FLUE GAS FLOW RATE (STD. CONDITIONS)	SDCFM	SDCFM	1,859	1,913	1,886		
PERCENT EXCESS AIR	% EA	%	116.8	116.5	116.6		
PERCENT ISOKINETIC SAMPLING RATE	% ISO	%	98.2	97.7	98.0		

SUMMARY OF PARTICULATE EMISSIONS

Date:	June 16, 2004						
Client:	OCSD						
Site:	Plant 2 Detroit Diesel 9163-7305 (EG)						
PARTICULATE TYPE			SYMBOL	UNITS	RUN 1	RUN 2	AVERAGE
FILTERABLE PARTICULATE							
NET MILLIGRAMS	mg	mg	51.2	51.7	51.4		
CONCENTRATION	Csd	gr/SDCF	0.0168	0.0171	0.0169		
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0598	0.0607	0.0602		
EMISSION RATE	E.R.	LB/HR	0.52	0.52	0.52		
EMISSION RATE	E.R.	LB/DAY	12.53	12.54	12.54		
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.433	0.434	0.433		
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.156	0.156	0.156		
CONDENSABLE PARTICULATE							
NET MILLIGRAMS	mg	mg	18.0	11.3	14.7		
CONCENTRATION	Csd	gr/SDCF	0.0059	0.0037	0.0048		
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0211	0.0133	0.0172		
EMISSION RATE	E.R.	LB/HR	0.18	0.11	0.15		
EMISSION RATE	E.R.	LB/DAY	4.41	2.74	3.58		
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.153	0.095	0.124		
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.055	0.034	0.045		
ORGANIC PARTICULATE							
NET MILLIGRAMS	mg	mg	NA	NA	NA		
CONCENTRATION	Csd	gr/SDCF	NA	NA	NA		
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	NA	NA	NA		
EMISSION RATE	E.R.	LB/HR	NA	NA	NA		
EMISSION RATE	E.R.	LB/DAY	NA	NA	NA		
TOTAL PARTICULATE							
NET MILLIGRAMS	mg	mg	69.2	63.0	66.1		
CONCENTRATION	Csd	gr/SDCF	0.0227	0.0208	0.0218		
CONCENTRATION @ 12% CO2	Csd,12	gr/SDCF	0.0808	0.0740	0.0774		
EMISSION RATE	E.R.	LB/HR	0.71	0.64	0.67		
EMISSION RATE	E.R.	LB/DAY	16.94	15.28	16.11		
EMISSION RATE ⁽¹⁾	E.R.	gm/BHP-Hr	0.586	0.529	0.557		
EMISSION RATE ⁽²⁾	E.R.	gm/BHP-Hr	0.211	0.191	0.201		

Note: NA = Not Applicable

⁽¹⁾ Calculated based on estimated horsepower during test.

⁽²⁾ Calculated based on full load rated horsepower listed in permit.

SUMMARY OF PARTICULATE SOURCE TEST DATA AND CALCULATIONS

Date:	06/16/04						
Client:	OCSD						
Site:	Plant 2 Detroit Diesel 9163-7305 (EG)						
MEASURED SOURCE PARAMETERS			SYMBOL	UNITS	RUN 1	RUN 2	AVERAGE
STACK DIAMETER	Ds	IN	12.88	12.88	12.88		
STACK AREA	Ds	FT^2	0.90	0.90	0.90		
BAROMETRIC PRESSURE	Pbar	IN. Hg	29.85	29.85	29.85		
STATIC PRESSURE	Pstat	IN. H2O	-1.250	-1.350	-1.300		
STACK PRESSURE	Ps	IN. Hg	29.76	29.75	29.75		
AVERAGE STACK TEMPERATURE	Ts	DEG. F	501.4	502.3	501.9		
AVERAGE SQ. ROOT VELOCITY PRESSURE	dP	IN. H2O	1.732	1.704	1.718		
SAMPLING PARAMETERS							
STANDARD TEMPERATURE	Tstd	DEG. F	68.0	68.0	68.0		
STANDARD PRESSURE	Pstd	IN. Hg	29.92	29.92	29.9		
PERCENT CARBON DIOXIDE	CO2	%	3.4	3.4	3.4		
PERCENT OXYGEN	O2	%	16.4	16.4	16.4		
PITOT CORRECTION FACTOR	Cp		0.818	0.818	0.818		
NOZZLE DIAMETER	Dn	IN	0.190	0.190	0.190		
NOZZLE DIAMETER	Dn	FT^2	0.00020	0.00020	0.00020		
SAMPLING TIME	t	MIN.	60.0	60.0	60.0		
GAS VOLUME SAMPLED	Vm	DCF	47.377	47.299	47.338		
WATER VAPOR COLLECTED	Vlc	GRAMS	49.2	49.0	49.1		
DRY GAS METER CORRECTION FACTOR	Y		1.0002	1.0002	1.0002		
DRY GAS METER TEMPERATURE	Tm	DEG. F	72.5	76.0	74.3		
ORIFICE PRESSURE	dH	IN. H2O	1.86	1.80	1.83		
CALCULATED RESULTS							
CORRECTED GAS VOLUME SAMPLED	Vmstd	DSCF	47.091	46.700	46.896		
VOLUME OF WATER CONDENSED	Vwstd	SCF	2.32	2.313	2.32		
MOISTURE CONTENT OF FLUE GAS	Bws	%	4.70	4.72	4.71		
DRY MOLECULAR WEIGHT OF FLUE GAS	MW dry	lb/lb-mole	29.19	29.20	29.20		
WET MOLECULAR WEIGHT OF FLUE GAS	MW wet	lb/lb-mole	28.67	28.67	28.67		
FLUE GAS VELOCITY	Vs	ft/sec	128.55	126.58	127.57		
FLUE GAS FLOW RATE (ACTUAL CONDITIONS)	ACFM	ACFM	6,974	6,866	6,920		
FLUE GAS FLOW RATE (STD. CONDITIONS)	SDCFM	SDCFM	3,630	3,569	3,600		
PERCENT EXCESS AIR	% EA	%	342.5	341.7	342.1		
PERCENT ISOKINETIC SAMPLING RATE	% ISO	%	99.3	100.1	99.7		

Note: NA = Not Applicable for the test program.

SUMMARY OF PARTICULATE SOURCE TEST DATA AND CALCULATIONS

Date:	06/17/04				
Client:	OCSD				
Site:	Plant 2 DD T163-7K16 EG Exhaust				
MEASURED SOURCE PARAMETERS			SYMBOL	UNITS	
STACK DIAMETER	Ds	IN	15.25	15.25	15.25
STACK AREA	Ds	FT^2	1.27	1.27	1.27
BAROMETRIC PRESSURE	Pbar	IN. Hg	29.82	29.82	29.82
STATIC PRESSURE	Pstat	IN. H2O	-0.820	-1.050	-0.935
STACK PRESSURE	Ps	IN. Hg	29.76	29.74	29.75
AVERAGE STACK TEMPERATURE	Ts	DEG. F	597.0	596.8	596.9
AVERAGE SQ. ROOT VELOCITY PRESSURE	dP	IN. H2O	1.589	1.580	1.584
SAMPLING PARAMETERS					
STANDARD TEMPERATURE	Tstd	DEG. F	68.0	68.0	68.0
STANDARD PRESSURE	Pstd	IN. Hg	29.92	29.92	29.9
PERCENT CARBON DIOXIDE	CO2	%	6.4	6.4	6.4
PERCENT OXYGEN	O2	%	12.3	12.3	12.3
PITOT CORRECTION FACTOR	Cp		0.818	0.818	0.818
NOZZLE DIAMETER	Dn	IN	0.190	0.190	0.190
NOZZLE DIAMETER	Dn	FT^2	0.00020	0.00020	0.00020
SAMPLING TIME	t	MIN.	60.0	60.0	60.0
GAS VOLUME SAMPLED	Vm	DCF	40.949	41.168	41.059
WATER VAPOR COLLECTED	Vlc	GRAMS	63.4	65.2	64.3
DRY GAS METER CORRECTION FACTOR	Y		1.0002	1.0002	1.0002
DRY GAS METER TEMPERATURE	Tm	DEG. F	81.0	81.4	81.2
ORIFICE PRESSURE	dH	IN. H2O	1.35	1.34	1.34
CALCULATED RESULTS					
CORRECTED GAS VOLUME SAMPLED	Vmstd	DSCF	39.972	40.155	40.063
VOLUME OF WATER CONDENSED	Vwstd	SCF	2.99	3.078	3.04
MOISTURE CONTENT OF FLUE GAS	Bws	%	6.97	7.12	7.04
DRY MOLECULAR WEIGHT OF FLUE GAS	MW dry	lb/lb-mole	29.51	29.51	29.51
WET MOLECULAR WEIGHT OF FLUE GAS	MW wet	lb/lb-mole	28.71	28.69	28.70
FLUE GAS VELOCITY	Vs	ft/sec	123.60	122.92	123.26
FLUE GAS FLOW RATE (ACTUAL CONDITIONS)	ACFM	ACFM	9,407	9,355	9,381
FLUE GAS FLOW RATE (STD. CONDITIONS)	SDCFM	SDCFM	4,348	4,316	4,332
PERCENT EXCESS AIR	% EA	%	134.5	133.7	134.1
PERCENT ISOKINETIC SAMPLING RATE	% ISO	%	98.7	99.9	99.3

Note: NA = Not Applicable for the test program.

PARTICULATE LABORATORY DATA

Date: June 15, 2004 Client: OCSD Site: Plant 2 CAT 3512 EG Exhaust								
Run No.	Type	Total Sample Vol. (ml)	Aliquot Vol. (ml)	Vlc less Silica gel Vol. (ml)	Gross Wt. (g)	Tare Wt. (g)	Uncorrected Final Wt. (mg)	Corrected Final Wt. (mg)
Blank	Acetone	150	-----	-----	103.0094	103.0094	0.00	-----
Blank	H2O	200	-----	-----	99.9375	99.9370	0.50	-----
Blank	MeCl2	NA	-----	-----	NA	NA	NA	-----
1	Filter	-----	-----	-----	0.5356	0.5004	35.20	35.20
	Front Half Rinses	275	275	-----	105.1231	105.1059	17.20	17.20
	Condensables	455	455	53.5	103.0066	102.9941	12.50	11.50
	Organics	NA	NA	NA	NA	NA	NA	NA
	Total	-----	-----	-----	-----	-----	64.90	63.90
2	Filter	-----	-----	-----	0.5573	0.5200	37.30	37.30
	Front Half Rinses	225	225	-----	101.5011	101.4861	15.00	15.00
	Condensables	435	435	52.9	86.4582	86.4378	20.40	19.44
	Organics	NA	NA	NA	NA	NA	NA	NA
	Total	-----	-----	-----	-----	-----	72.70	71.74

Note: NA = Not Applicable for the test program.

GRAVIMETRIC ANALYSIS

CLIENT: OCSD
REPORT #: 2061.1014
TEST DATE: 06/15/04

ANALYST: GS
METHOD: CARB Method 5

LOCATION/UNIT: P2 E1 (CAT)
RUN # PM-1

PROBE AND NOZZLE WASH

Sample Volume: 275 ml
Evaporation Dish: E50

Aliquot: 275 ml

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	105.1230	105.1232		105.1231 g
Tare:	105.1059	105.1059	105.1059	105.1059 g
Net Weight				17.2 mg

FILTER

Filter Number: 110- 0133

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5356	0.5356		0.5356 g
Tare:	0.5004	0.5004	0.5004	0.5004 g
Net Weight				35.2 mg

CONDENSABLE PARTICULATE

Sample Volume: 455 ml
Evaporation Dish: E21

Aliquot: 455 ml

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	103.0014	103.0118		103.0066 g
Tare:	102.9941	102.9941	102.9941	102.9941 g
Net Weight				12.5 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCSD
 REPORT #: 2061.1014
 TEST DATE: 06/15/04

ANALYST: GS
 METHOD: CARB Method 5

LOCATION/UNIT: P2 E1 (CAT)
 RUN # PM-2

PROBE AND NOZZLE WASH

Sample Volume: 225 ml Aliquot: 225 ml
 Evaporation Dish: E55

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	101.5012	101.5009		101.5011 g
Tare:	101.4861	101.4861	101.4861	101.4861 g
Net Weight				15.0 mg

FILTER

Filter Number: 110- 0101

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5573	0.5572		0.5573 g
Tare:	0.5200	0.5200	0.5200	0.5200 g
Net Weight				37.3 mg

CONDENSABLE PARTICULATE

Sample Volume: 435 ml Aliquot: 435 ml
 Evaporation Dish: E39

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	86.4580	86.4583		86.4582 g
Tare:	86.4378	86.4378	86.4378	86.4378 g
Net Weight				20.4 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCSD
REPORT #: 2061.1014
TEST DATE: 06/16/04

ANALYST: GS
METHOD: CARB Method 5

LOCATION/UNIT: Detroit Diesel 1 (E6)
RUN # PM-1

PROBE AND NOZZLE WASH

Sample Volume: 200 ml Aliquot: 200 ml
Evaporation Dish: E65

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	104.3660	104.3665		104.3663 g
Tare:	104.3499	104.3499	104.3499	104.3499 g
Net Weight				16.4 mg

FILTER

Filter Number: 110- 0092

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5465	0.5466		0.5466 g
Tare:	0.5118	0.5118	0.5118	0.5118 g
Net Weight				34.8 mg

CONDENSABLE PARTICULATE

Sample Volume: 425 ml Aliquot: 425 ml
Evaporation Dish: E37

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	102.2890	102.2894		102.2892 g
Tare:	102.2702	102.2702	102.2702	102.2702 g
Net Weight				19.0 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCS
 REPORT #: 2061.1014
 TEST DATE: 06/16/04

ANALYST: GS
 METHOD: CARB Method 5

LOCATION/UNIT: Detroit Diesel 1 (E6)
 RUN # PM-2

PROBE AND NOZZLE WASH

Sample Volume: 190 ml Aliquot: 190 ml
 Evaporation Dish: E53

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	99.5998	99.6002		99.6000 g
Tare:	99.5853	99.5853	99.5853	99.5853 g
Net Weight				14.7 mg

FILTER

Filter Number: 110- 0090

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5524	0.5523		0.5524 g
Tare:	0.5154	0.5154	0.5154	0.5154 g
Net Weight				37.0 mg

CONDENSABLE PARTICULATE

Sample Volume: 440 ml Aliquot: 440 ml
 Evaporation Dish: E12

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	100.3909	100.3911		100.3910 g
Tare:	100.3787	100.3787	100.3787	100.3787 g
Net Weight				12.3 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCS
REPORT #: 2061.1014
TEST DATE: 06/17/04

ANALYST: GS
METHOD: CARB Method 5

LOCATION/UNIT: Detroit Diesel (New)
RUN # PM-1

PROBE AND NOZZLE WASH

Sample Volume: 185 ml Aliquot: 185 ml
Evaporation Dish: E52

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	106.2052	106.2056		106.2054 g
Tare:	106.1926	106.1926	106.1926	106.1926 g
Net Weight				12.8 mg

FILTER

Filter Number: 110- 0083

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5304	0.5302		0.5303 g
Tare:	0.5145	0.5145	0.5145	0.5145 g
Net Weight				15.8 mg

CONDENSABLE PARTICULATE

Sample Volume: 450 ml Aliquot: 450 ml
Evaporation Dish: E29

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	86.5100	86.5095		86.5098 g
Tare:	86.4891	86.4891	86.4891	86.4891 g
Net Weight				20.7 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCSD
REPORT #: 2061.1014
TEST DATE: 06/17/04

ANALYST: GS
METHOD: CARB Method 5

LOCATION/UNIT: Detroit Diesel (New)
RUN # PM-2

PROBE AND NOZZLE WASH

Sample Volume: 205 ml Aliquot: 205 ml
Evaporation Dish: E60

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	103.0922	103.0925		103.0924 g
Tare:	103.0816	103.0816	103.0816	103.0816 g
Net Weight				10.8 mg

FILTER

Filter Number: 110- 0135

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	0.5100	0.5102		0.5101 g
Tare:	0.4960	0.4960	0.4960	0.4960 g
Net Weight				14.1 mg

CONDENSABLE PARTICULATE

Sample Volume: 440 ml Aliquot: 440 ml
Evaporation Dish: E41

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	98.6283	98.6280		98.6282 g
Tare:	98.6014	98.6014	98.6014	98.6014 g
Net Weight				26.8 mg

GRAVIMETRIC ANALYSIS

CLIENT: OCSD
REPORT #: 2061.1014
TEST DATE: 06/15/04

ANALYST: GS
METHOD: CARB Method 5

LOCATION/UNIT: BLANKS
RUN #

ACETONE BLANK

Sample Volume: 150 ml Aliquot: 150 ml
Evaporation Dish: E64

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	103.0096	103.0091		103.0094 g
Tare:	103.0094	103.0094	103.0094	103.0094 g
Net Weight				0.0 mg

DI H2O BLANK

Sample Volume: 200 ml Aliquot: 200 ml
Evaporation Dish: E57

	1	2	3	Average
Date:	06/21/04	06/23/04		
Time:	12:00	14:00		
Weight:	99.9374	99.9375		99.9375 g
Tare:	99.9370	99.9370	99.9370	99.9370 g
Net Weight				0.5 mg

7:30 a.m. and 4:30 p.m. on days when school is in session, until control equipment is in place, when the hours would be between 7:30 a.m. and 3:30 p.m.; and

- (iii) An engine that is located more than 100 meters (328 feet) and less than or equal to 500 feet from a school shall not be operated for non-emergency use between the hours of 7:30 a.m. and 3:30 p.m. on days when school is in session. An engine that emits diesel PM at a rate of 0.01 g/bhp-hr or less is not subject to this restriction.

(3) (C) Except as provided in subdivision (h), no owner or operator of an in-use stationary emergency standby diesel-fueled CI engine (> 50 hp) shall operate the engine in the South Coast Air Quality Management District unless it meets, in accordance with the applicable compliance schedules specified in subdivision (e), the following requirements:

- (i) Diesel PM Standard and Hours of Operating Requirements

The owner or operator of in-use stationary emergency standby diesel-fueled engines (>50 bhp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school shall meet the following requirements:

- (I) No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate greater than 0.40 g/bhp-hr more than 20 hours per year for maintenance and testing purposes. In-use emergency standby diesel fueled CI engines operated at health facilities shall be allowed up to 10 additional hours per year for maintenance and testing purposes. This section does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).
- (II) No owner or operator shall operate an in-use stationary emergency standby diesel-fueled CI engine (>50 bhp) that emits diesel PM at a rate less than or equal to 0.40 g/bhp-hr more than 30 hours per year for maintenance and testing purposes, except as provided in clause (c)(3)(C)(ii). This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C).

(ii) Alternative Diesel PM Standard and Hours of Operating Requirements

The Executive Officer may allow the owner or operator of an in-use emergency standby diesel-fueled CI engine (> 50 hp), except those located on school grounds or 100 meters or less from an existing, as of April 2, 2004, school, to operate more than 30 hours per year for maintenance and testing purposes on a site-specific basis, provided the following limits are met:

- ~~(I) Up to 50 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.15 g/bhp-hr.~~
- (II) Up to 100 annual hours of operation are allowed for maintenance and testing purposes if the diesel PM emission rate is less than or equal to 0.01 g/bhp-hr.

(iii) Diesel PM Standards and Hours of Operating Requirements For In-Use Stationary Emergency Standby Diesel-Fueled Engines (>50 Bhp) Located on School Grounds or 100 Meters or Less from an Existing, as of April 2, 2004, Schools

All in-use emergency diesel-fueled CI engines (> 50 bhp), subject to this clause, certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with either option 1 or option 2 below. All engines not certified in accordance with the Off-Road Compression-Ignition Engine Standards (Title 13, CCR, Section 2423) shall comply with option 1, option 2, or option 3 below:

- (I) Option 1: Reduce the diesel PM emission rate by at least 85 percent, by weight, from the baseline level, in accordance with the appropriate compliance schedule specified in subdivision (e) and operate 75 hours or less per year for maintenance and testing purposes. This subclause does not limit engine operation for emergency use and for emission testing to show compliance with subparagraph (c)(3)(C); or
- (II) Option 2: Emit diesel PM at a rate less than or equal to 0.01 g/bhp-hr in accordance with the appropriate compliance schedule as specified in subdivision (e) and operate 100 hours or less per year for maintenance and testing purposes.

10/31/2007

TERRY AHN
ORANGE COUNTY SANITATION DISTRICT
P O BOX 8127
FOUNTAIN VALLEY, CA 92728

Facility ID: 29110
Located at: 22212 BROOKHURST ST, HUNTINGTON BEACH

Thank you for filing your application(s) with the South Coast Air Quality Management District (AQMD).

The application number(s) assigned by AQMD to your application package(s) is/are on Page 2 of this letter. Please refer to the information on Page 2 when contacting AQMD for assistance. The information you submitted with your application(s) or in your latest submittal is complete to the extent that allows us to begin processing of your application(s), however some clarifying data may still be needed. The acceptance of your application(s) does not imply that permit(s) has/have been approved. The engineer assigned to process your application(s), as indicated below, may contact you if additional information is required.

If you have any question or need additional information about your application(s), please contact the engineer listed below:

Engineer: Gaurang Rawal

Telephone: (909) 396 - 2543

For general information about AQMD's permitting process, please call (909) 396-2468.

cc: Application file(s)

AQMD PERMIT APPLICATION INFORMATION

(Please refer to this information when contacting AQMD for Assistance)

10/31/2007

Facility ID: 29110

Application Number (s)	Equipment Description
474766	I C E (>500 HP) EM ELEC GEN DIESEL <i>Cat. 1482 BHP</i>
474767	I C E (>500 HP) EM ELEC GEN DIESEL " "
474768	I C E (>500 HP) EM ELEC GEN DIESEL " "
474769	I C E (>500 HP) EM ELEC GEN DIESEL <i>Det. DSL, 2935 BHP</i>
474770	I C E (>500 HP) EM ELEC GEN DIESEL " "

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Ident.
Ident.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE APPLICATION PROCESSING AND CALCULATIONS	PAGE	1 of 3	For Official Use Only
	CHECKED BY:		
	A/N:		
	PROCESSED BY:		
	DATE:		

Applicant's Name: Orange County Sanitation District ID: _____

Equipment Location: 22212 Brookhurst Street, Huntington Beach, CA 9264 _____

Equipment Description:

EQUIPMENT: INTERNAL COMBUSTION ENGINE
 MANUFACTURER: Detroit Diesel
 MODEL NO.: T163-7K16
 FUELED WITH: Diesel Oil No. 2
 DRIVING: Electrical Generator
 SERIAL NO.: DD5272000531
 CYLINDERS: Sixteen
 ASPIRATION: Turbocharged/Aftercooled
 HP RATING: 2935.00

Permit Description:

INTERNAL COMBUSTION ENGINE,
 Fixed site, Detroit Diesel, MODEL NO.
 T163-7K16, SERIAL NO. DD5272000532,
 Diesel Oil No. 2 FUELED, Four CYCLES,
 Sixteen CYLINDERS,
 Turbocharged/Aftercooled, RATED AT
 2935 B.H.P., DRIVING AN EMERGENCY
 Electrical Generator.

CALCULATIONS

See ATTACHMENT A

EVALUATION:

Rule 212: (Not Applicable if within 1,000 feet of a school.)

This is a not significant project as defined by this rule. Hence, public notice is not required.

Rule 401:

Based on experience with similar equipment, this engine is expected to comply with the visible emission limits.

Rule 402:

Based on experience with similar equipment, nuisance complaints are not expected.

Rule 404:

Based on experience with similar equipment, compliance with this rule is expected.

Rule 431.2:

Diesel fuel supplied to this equipment must contain 0.05% or less sulfur by weight. Compliance is expected.

Rule 1110.2:

Exempt per Rule 1110.2 (i)(2) and (i)(10).

REGULATION XIII:

Exempt per Rule 1301 (b)(3).

REGULATION XIV:

Exempt per Rule 1401 (g)(1)(F).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT <i>ENGINEERING AND COMPLIANCE WORKSHEET</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE 2 of 3	For Official Use Only
	CHECKED BY:	
	A/N:	
	PROCESSED BY:	
	DATE:	

CARB-EPA Emission Limits for Nonroad Compression-Ignited Engines:

For engine manufacture date on or after 01/01/1999 and engine rating between _____, the following emission limits apply:

	NOx	ROG	CO	PM
Required				
Actual				
Compliance				

CONDITIONS

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITIONS AT ALL TIMES.
3. SULFUR CONTENT OF DIESEL FUEL SUPPLIED TO THE ENGINE SHALL NOT EXCEED 0.05% BY WEIGHT.
4. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR.
5. THIS ENGINE SHALL NOT OPERATE MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
6. AN OPERATIONAL NON-RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
7. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION AND THE ELAPSED TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
8. IN ADDITION TO MAINTENANCE AND TESTING OF THIS ENGINE, THIS ENGINE SHALL ONLY BE USED FOR EITHER PROVIDING ELECTRICAL POWER TO PORTABLE OPERATIONS OR EMERGENCY POWER TO STATIONARY SOURCES. PORTABLE OPERATIONS ARE THOSE WHERE IT CAN BE DEMONSTRATED THAT BECAUSE OF THE NATURE OF THE OPERATION, IT IS NECESSARY TO PERIODICALLY MOVE THE EQUIPMENT FROM ONE LOCATION TO ANOTHER. EMERGENCIES AT STATIONARY SOURCES ARE THOSE THAT RESULT IN AN INTERRUPTION OF SERVICE OF THE PRIMARY POWER SUPPLY OR DURING STAGE II OR III ELECTRICAL EMERGENCIES DECLARED BY THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT <i>ENGINEERING AND COMPLIANCE</i> APPLICATION PROCESSING AND CALCULATIONS	PAGE	3 of 3	For Official Use Only
	CHECKED BY:		
	A/N:		
	PROCESSED BY:		
	DATE:		

9. UPON THE FIFTH DAY AFTER PLACEMENT OF THIS EQUIPMENT INTO OPERATION AT A NEW SITE, THE DISTRICT SHALL BE NOTIFIED VIA TELEPHONE AT 1-877-810-6995 OF THE EXACT NATURE OF THE PROJECT AS FOLLOWS:
 - A. THE PERMIT NUMBER OF THE PORTABLE EQUIPMENT.
 - B. THE NAME AND TELEPHONE NUMBER OF A CONTACT PERSON.
 - C. THE LOCATION WHERE THE PORTABLE EQUIPMENT WILL BE OPERATED.
 - D. THE ESTIMATED TIME THE PORTABLE EQUIPMENT WILL BE LOCATED AT THE SITE.
 - E. DESCRIPTION OF THE PROJECT.
 - F. IF LESS THAN 1/4 MILE, THE DISTANCE TO THE NEAREST SENSITIVE RECEPTOR. SENSITIVE RECEPTORS ARE DEFINED AS LONG-TERM HEALTH CARE FACILITIES, REHABILITATION CENTERS, CONVALESCENT CENTERS, RETIREMENT HOMES, RESIDENCES, SCHOOLS, PLAYGROUNDS, CHILD CARE CENTERS, AND ATHLETIC FACILITIES.
10. THIS ENGINE AND ITS REPLACEMENT UNIT INTENDED TO PERFORM THE SAME OR SIMILAR FUNCTION, SHALL NOT RESIDE AT ANY ONE LOCATION FOR MORE THAN 12 CONSECUTIVE MONTHS. THE PERIOD DURING WHICH THE ENGINE AND ITS REPLACEMENT IS MAINTAINED AT A STORAGE FACILITY SHALL BE EXCLUDED FROM RESIDENCY TIME DETERMINATION.
11. THIS ENGINE SHALL NOT BE REMOVED FROM ONE LOCATION FOR A PERIOD OF TIME, AND THEN IT OR ITS EQUIVALENT ENGINE RETURNED TO THE SAME LOCATION, IN ORDER TO CIRCUMVENT THE PORTABLE ENGINE RESIDENCE TIME REQUIREMENTS.

ORANGE COUNTY
SANITATION DISTRICT

10844 Ellis Avenue, P.O. Box 8127
Fountain Valley, CA 92728-8127
(714) 962-2411

VENDOR NO. 15843

DATE: 10/17/07

CHECK NO. 1000095038

VENDOR NAME SOUTH COAST AIR QUALITY MGT RE

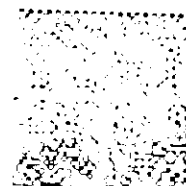
INVOICE NO.	INVOICE DATE	DESCRIPTION	GROSS AMOUNT	DISC. - ADJ.	PAYMENT AMOUNT
SCAQMD PERMIT # F21753	09/04/07	SCAQMD Permit No. F217	923.92		923.92
			AMOUNT - U.S. DOLLARS		\$*****923.92



ORANGE COUNTY SANITATION DISTRICT

P.O. Box 8127 • Fountain Valley, CA 92728-8127

PERMIT # F21753



Revised

012H18502601

\$00.750

10/17/2007

Mailed From 92708

US POSTAGE

South Coast Air Quality
Management District
P.O. Box 4944
Diamond Bar CA 91765

91 540944 8900

